

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

In the January 23, 2007 Office Action, the Examiner rejected claims 1, 3-7, 9-13, 16-18 and 20-23 under U.S. Publication No. 2002/0142777 (McGovern) in view of U.S. Patent No. 5,668,637 (Dent) and in further view of U.S. Publication No. 2005/0232232 (Farber et al). The Examiner has asserted that it would have been obvious to combine these three references to create a system possessing all of the limitations of these claims. Applicant disagrees with this position. In fact, one skilled in the art would not have been motivated to make the combination suggested by the Examiner when reading the cited references and, even if such combinations were made, the combination would still fail to teach all of the features of the relevant claims.

As discussed in Applicant's most recent Amendment and Reply, McGovern et al. and Dent each fail to disclose or suggest a system where a wideband channel radio frequency is used for communicating user data when a device involved in the communication is not located in a cell boundary region, and where a narrowband channel frequency is used when the device is in a cell boundary region. In response, the Examiner cited Farber et al., asserting that "FARBER discloses wherein the wideband channel radio frequency is used for communicating user data when a device involved in the communication is not located in a cell boundary region." Farber et al. contains no such teaching. Instead, Farber et al. teaches nothing more than the concept that a device can use both wideband and narrowband encoding formats. Farber et al. does *not* discuss specifically using a wideband format when not in a cell boundary region.

In the January 23, 2007 Office Action, the Examiner relied on paragraphs 17 and 18 for support of the position that the required feature is taught in Farber et al. However, even a cursory reading of these sections belies this position. In fact, these two sections do nothing more than indicate that a change in encoding formats in a device is possible, after which another device may make a corresponding change. This is clearly stated in paragraph [0018], which succinctly states in its entirety "[i]f one side changes its encoding format it may notify

the opposite side thereof. Such a notification may be performed prior to entering an operational mode that bypasses the transcoding operations.” No reference is made to which frequency is used when the device is near or not near a cell boundary.

It is unclear to Applicant how the Examiner can assert that one would even be motivated to look to Farber et al. to make the suggested combination when, even if the teachings of Farber et al. were used, the relevant claims still would be missing the elements at issue in the present claims. In fact, Farber et al. as a whole is completely silent as to the use of cells in a cellular communication system; not only are cell boundaries and other cell regions not discussed at length in Farber et al., the term “cell” does not appear anywhere in the reference. As such, it simply cannot be said that Farber et al. teaches anything concerning which frequency should be used at a particular position in a cell, when cells are never discussed.

In the action, the Examiner further stated “communication between two terminals can be actively switched between narrowband and wideband communication. As with all radio communication systems, this is achievable for all regions of a cell.” The first half of this statement has already been discussed. As to the second statement, Applicant submits that this statement is both unsupported by the cited text and irrelevant to the issues at hand. The statement is unsupported because, as discussed above, Farber et al. is completely silent as to cell regions or even cells generally. It is also irrelevant because, even if a frequency switching operation can occur anywhere, Farber et al. does not teach (nor does any other reference teach) choosing which frequency to use based upon whether the device is within a cell boundary. Unless the Examiner can point with particularity to where such a teaching exists, this set of rejections is wholly improper.

Because none of the cited references, either alone or in combination, teach the use of wideband channels when not in a cell boundary region and narrowband channels when in a cell boundary region, claims 1, 3-7, 9-13, 16-18 and 20-23 are each patentable over the cited prior art.

The Examiner rejected claim 8 based upon McGovern et al., Dent and Farber et al. and in further view of U.S. Publication No. 2002/0028655 (Roesner). Claims 19 and 24 were rejected based upon McGovern et al., Dent and Farber et al. and in further view of U.S. Patent No. 6,049,538 (Scott). Claims 25, 27 and 28 were rejected based upon McGovern et al., Dent and Farber et al. and in further view of U.S. Patent No. 5,299,228 (Hall). Each of these claims is directly or indirectly dependent upon independent claims 13 or 20. As Applicant has discussed at length above, these independent claims are clearly allowable over the cited prior art, and Applicant therefore submits that claims 19, 24 and 25 are allowable for at least the same reasons.

The Examiner also rejected claim 26 as being unpatentable over McGovern et al. and Dent, and in further view of U.S. Patent No. 6,389,059 (Smith). Claim 29 was rejected based upon these same references and in further view of Hall. In the case of claim 26, the Examiner has asserted that all of the features of this claim can be found in McGovern et al., Dent and Smith. Once again, Applicant disagrees with the Examiner's position. Smith, like Farber et al., does nothing more than teach a system where one can switch between narrowband and wideband frequencies. However, there is absolutely no teaching of switching to a narrowband frequency when approaching a cell boundary.

Although the Examiner has cited to various sections of Smith to support the proposition that Smith teaches switching frequencies "to reduce interference of adjacent beams and systems," this does not teach one skilled in the art that one should switch to a narrowband frequency when approaching a cell boundary. In addition, Smith, when read as a whole, clearly is directed to an entirely different problem than what is addressed in claim 26. For example, column 9, lines 32-60 clearly describe how Smith is directed towards systems and devices including multiple modes, one of which is used for traditional cellular communication and one of which is used for microcellular communication. Although these sections and others teach that the device at issue can switch between the two modes (and hence between narrowband and spread spectrum frequencies), the reason for this switch is *not* because a cell boundary is being approached.

Still further, the Examiner has appeared to rely on column 11, line 61-column 12, line 30 to support his position that it would have been obvious to switch to a narrowband frequency from a wideband frequency in order to reduce interference.¹ However, this section actually teaches the exact opposite—that a spread spectrum frequency should be used to reduce interference, *not* a narrowband frequency. In particular, the text apparently relied upon by the Examiner states:

Another way in which aspects of the present invention minimize interference with microwave communication users is by using a spread spectrum signal for communication. A spread-spectrum signal with its hoise-like characteristics creates much less interference than a narrowband signal of comparable power. Approximately 83% of all OFS links use analog microwave systems which are highly susceptible to narrowband interference...A 10 MHz bandwidth spread spectrum signal may result in 1/100 (20 dB) less interference to an OFS receiver compared with a similar power 100 KHz. bandwidth narrowband signal. ... The narrowband exclusion zone is 30 to 100 times larger than the spread spectrum exclusion zone.

Therefore, Smith is clearly stating that a spread spectrum (wide band) frequency should be used to reduce interference. In other words, Smith is teaching *away* from what the Examiner is proposing, namely switching to a narrowband frequency in order to reduce interference. This is yet a further reason why one skilled in the art would not make the combination suggested by the Examiner.

Because, as discussed above, Smith fails to teach the feature of switching to a narrowband frequency when approaching a cell boundary, and because all of the other references cited by the Examiner fail to cure this deficiency as well, Applicant submits that claim 26 is allowable over the cited references. Furthermore, because claim 29 is dependent upon claim 26, Applicant submits that this claim is allowable for at least the same reasons.

Lastly, Applicant notes that, when making the latest rejections based upon Farber et al. and Smith, the Examiner has completely failed to cite any specific support for the specific features relied upon. Instead and in both cases, the Examiner has simply cited a pair of

¹ In the January 23, 2007 Office Action, the Examiner cited to “col. 11, line 61-30.”

references that discuss switching between frequencies, without regard to the limitations at issue in the relevant claims. The Examiner has failed to cite any specific supporting text and failed to support any explicit motivation to make the suggested combinations (and in the case of Smith, virtually ignored a motivation *not* to make such a combination). As such, the combinations made by the Examiner can only have been made through the improper use of hindsight, which is expressly forbidden. Unless the Examiner can provide more adequate support for these combinations, the most recent rejections must be withdrawn for this reason as well.

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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